

ABSTRACT OF THE DISCLOSURE

The invention includes a method of forming a capacitor structure. A first electrical node is formed, and a layer of metallic aluminum is formed over the first electrical node. Subsequently, an entirety of the metallic aluminum within the layer is transformed into one or more of AlN, AlON, and AlO, with the transformed layer being a dielectric material over the first electrical node. A second electrical node is then formed over the dielectric material. The first electrical node, second electrical node and dielectric material together define at least a portion of the capacitor structure. The invention also pertains to a capacitor structure which includes a first electrical node, a second electrical node, and a dielectric material between the first and second electrical nodes. The dielectric material consists essentially of aluminum, oxygen and nitrogen.